

Remarks

Claims 22-45 are pending in this application. Applicant has cancelled claims 1-21 and present new claims 22-45 to clarify the present invention. Applicant respectfully requests favorable reconsideration of this application.

The Examiner rejected claims 3 and 5 under 35 U.S.C. § 112, second paragraph. Newly presented claims 22-45 do not include the language objected to by the Examiner. Accordingly, Applicant respectfully request withdrawal of the rejection under 35 U.S.C. § 112, second paragraph.

The Examiner rejected claims 1-21 under 35 U.S.C. § 103(a) as being unpatentable over U.S. patent 4,400,703 to Shiokawa et al. in view of U.S. patent 4,697,192 to Hofer et al.

Shiokawa et al. does not suggest the present invention as recited in newly presented independent claim 22 since, among other things, Shiokawa et al. does not suggest a group antenna that includes radiating elements that each includes a tapering rotationally-symmetrical body. Rather, Shiokawa suggests axial mode helical antenna radiating elements, as shown in Fig. 5b. These radiating elements are quite different than the radiating elements according to the present invention as recited in claim 22. Additionally, Shiokawa et al. does not suggest antenna radiation elements covered with a metallic casing surface.

Combining Shiokawa et al. with Hofer et al. does not suggests the present invention as

recited in claim 22 since, among other things, Hofer et al. does not overcome the above-described deficiencies of Shiokawa et al. For example, Hofer et al. also does not suggest a group antenna that includes radiating elements that each includes a tapering rotationally-symmetrical body. Rather, as described at col. 2, lines 20-22, Hofer et al. suggests a "planar spiral antenna section 12, conical spiral antenna section 15 and helix spiral section 18" that "combine to form the radiating portion of the antenna element." This radiating portion or element also is a kind of helical antenna. The material 40 covering the radiating helical antenna is an external load absorber of non-metallic material. The materials inside the metal spirals are of significant importance for the operation of the antenna.

In view of the above, the combination of Hofer et al. and Shiokawa et al. does not suggest a group antenna according to the invention as recited in claim 22. Both Hofer et al. and Shiokawa et al. suggest helical-type antenna radiating elements that have different radiation characteristics than the antenna element according to the present invention as recited in claim 22. Furthermore, Hofer et al. does not include any suggestions to combine several antenna elements into a group antenna.

In view of the above, the references relied upon in the office action do not suggest patentable features of the present invention. Therefore, the references relied upon in the office action do not make the present invention obvious. Accordingly, Applicant respectfully requests withdrawal of the rejections based upon the cited reference.

In conclusion, Applicant respectfully requests favorable reconsideration of this case and

early issuance of the Notice of Allowance.

If an interview would advance the prosecution of this case, Applicant respectfully urges the Examiner to contact the undersigned at the telephone number listed below.

The undersigned authorizes the Commissioner to charge fee insufficiency and credit overpayment associated with this communication to Deposit Account No. 22-0261.

Respectfully submitted,

Date:

10/5/00



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